

Features

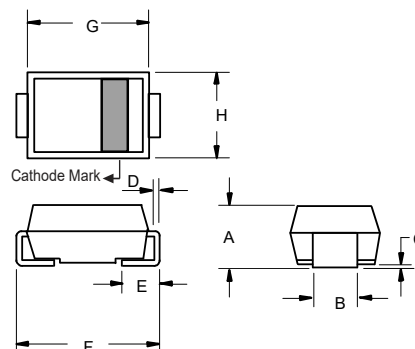
- Halogen Free. "Green" Device (Note 1)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Lead Free Finish/RoHS Compliant (Note 2)("P" Suffix Designates RoHS Compliant. See Ordering Information)
- High Current Capability
- For Surface Mount Application

Maximum Ratings @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Value							Unit
		SK 52L	SK 53L	SK 54L	SK 55L	SK 56L	SK 58L	SK 510L	
Peak Repetitive Reverse Voltage	V_{RRM}								V
Working Peak Reverse Voltage	V_{RWM}	20	30	40	50	60	80	100	
DC Blocking Voltage	V_R								
RMS Reverse Voltage	V_{RMS}	14	21	28	35	42	56	70	V
Average Rectified Forward Current @ $T_L=90^\circ\text{C}$	$I_{F(AV)}$	5							A
Non-Repetitive Peak Surge Current @ 8.3ms Half Sine Wave	I_{FSM}	100							A
I^2t Rating for Fusing @ $1\text{ms} \leq t \leq 8.3\text{ms}$	I^2t	41.5							A^2s

5 Amp Schottky Rectifier 20 to 100 Volts

SMC (DO-214AB)



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.079	0.103	2.00	2.62	
B	0.108	0.128	2.75	3.25	
C	0.002	0.008	0.051	0.203	
D	0.006	0.012	0.152	0.305	
E	0.030	0.060	0.76	1.52	
F	0.305	0.320	7.75	8.13	
G	0.260	0.280	6.60	7.11	
H	0.220	0.245	5.59	6.22	

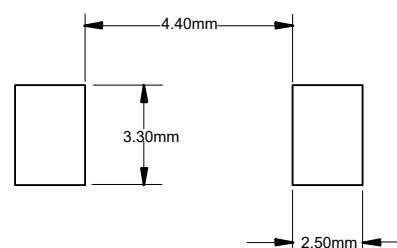
Marking code

Part Number	Marking Code
SK52L	SK52
SK53L	SK53
SK54L	SK54
SK55L	SK55
SK56L	SK56
SK58L	SK58
SK510L	SK510

Internal Structure

Pin	Description	Simplified outline	Graphic symbol
1	Cathode	<p>XXXX = Marking code</p>	
2	Anode		

Suggested Solder Pad Layout



Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

2. High Temperature Solder Exemption Applied, see EU Directive Annex 7a.

Thermal characteristics

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
T_J	Operating Junction Temperature Range		-55		150	°C
T_{stg}	Storage Temperature Range		-55		150	°C
$R_{th(J-L)}$	Thermal Resistance from Junction to Lead	Note 1		16		°C/W
$R_{th(J-A)}$	Thermal Resistance from Junction to Ambient	Note 1		65		°C/W

Note:

1. Mounted on P.C.B. with 16mm*16mm copper pad areas.

Electrical Characteristics @ 25°C Unless Otherwise Specified

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage	V_F	$I_F=5A; T_J=25^\circ C$ $I_F=5A; T_J=25^\circ C$ $I_F=5A; T_J=25^\circ C$			0.55	V
SK52L~SK54L					0.75	
SK55L~SK56L					0.85	
Reverse Current	I_R	at Rated $V_R; T_J=25^\circ C$ at Rated $V_R; T_J=125^\circ C$ at Rated $V_R; T_J=25^\circ C$ at Rated $V_R; T_J=125^\circ C$			0.1	mA
SK52L~SK56L					50	
SK58L~SK510L					0.01	
					10	
Junction Capacitance	C_J	$V_R=4V; f=1MHz; T_J=25^\circ C$			275	pF
SK52L~SK54L					195	
SK55L~SK56L					135	
SK58L~SK510L						

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

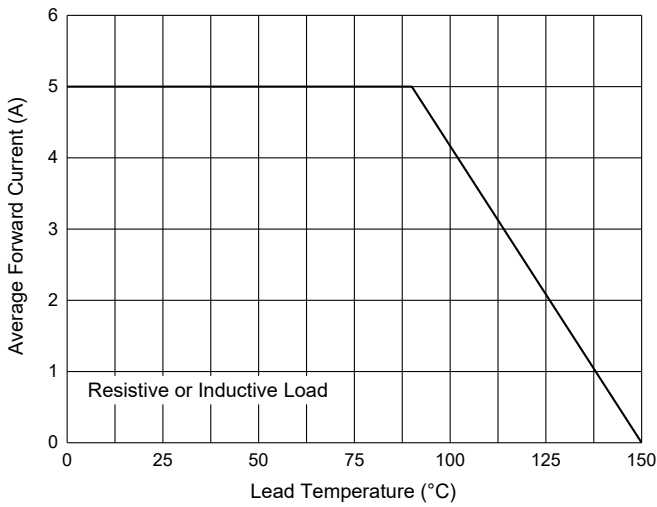


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

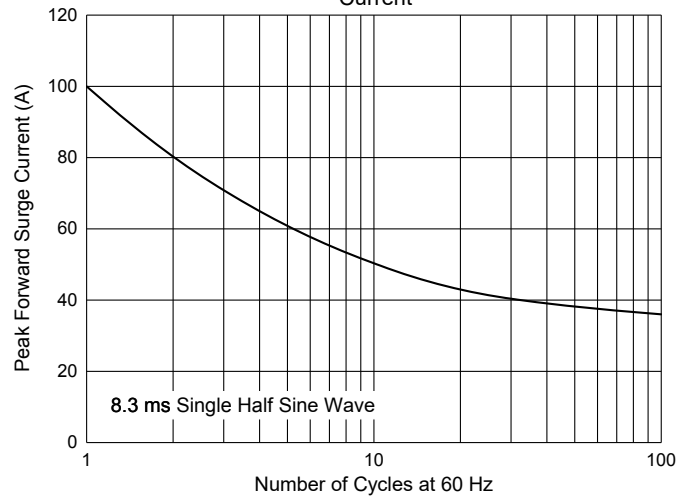


Fig. 3 - Typical Forward Characteristics

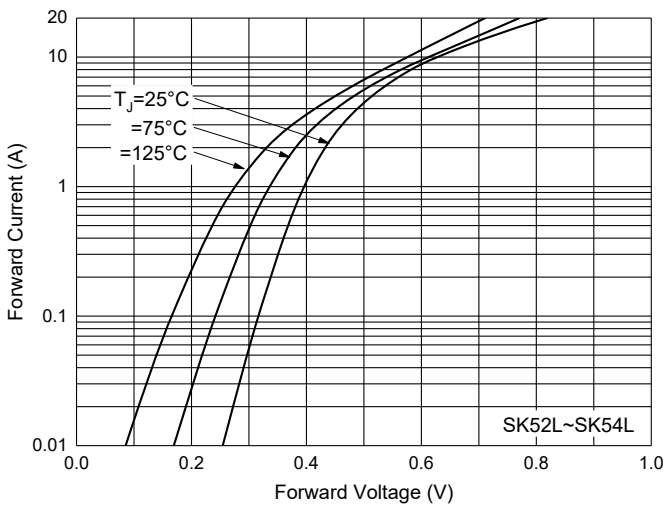


Fig. 4 - Typical Reverse Leakage Characteristics

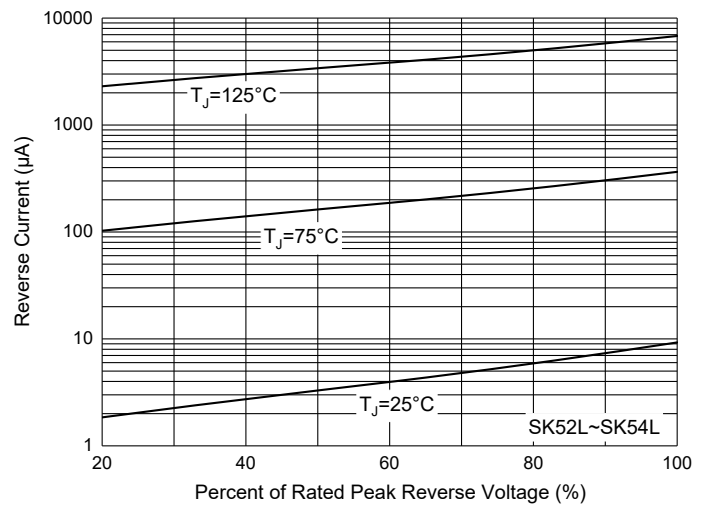


Fig. 5 - Typical Forward Characteristics

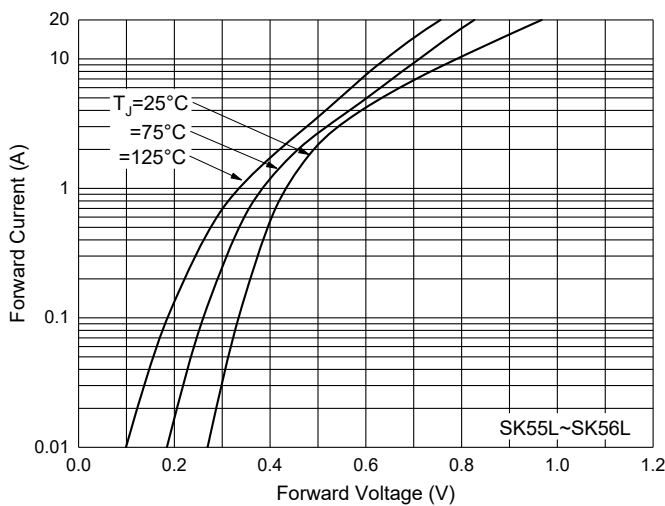
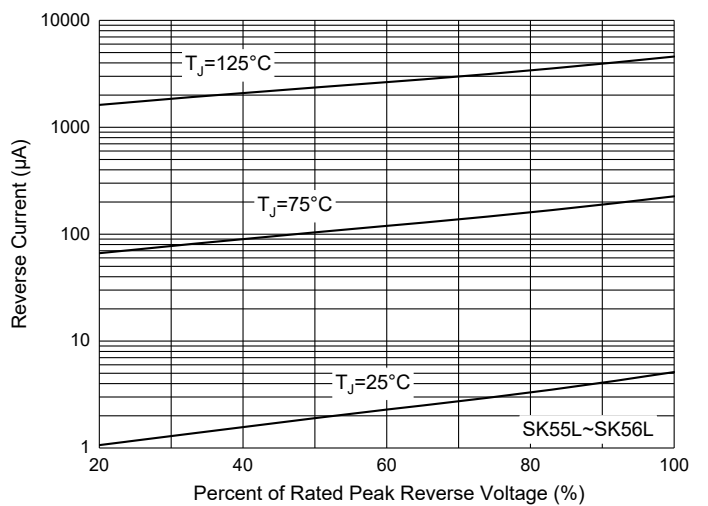


Fig. 6 - Typical Reverse Leakage Characteristics



Curve Characteristics

Fig. 7 - Typical Forward Characteristics

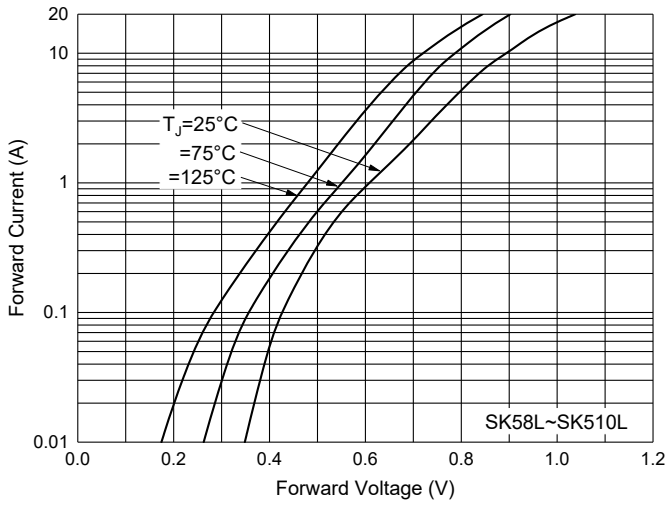


Fig. 8 - Typical Reverse Leakage Characteristics

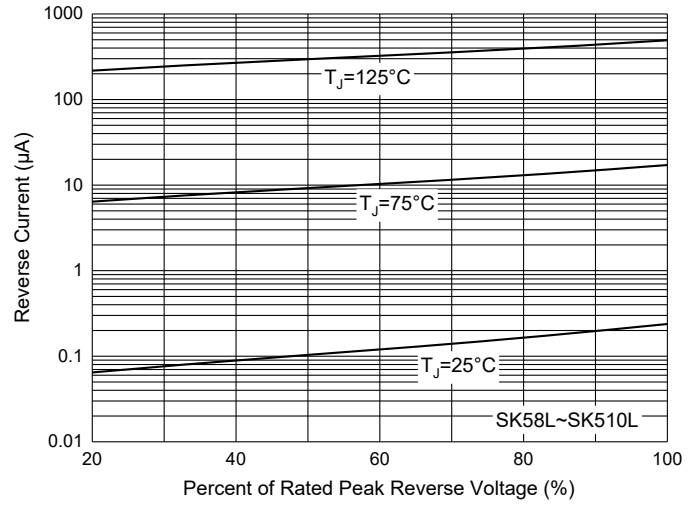
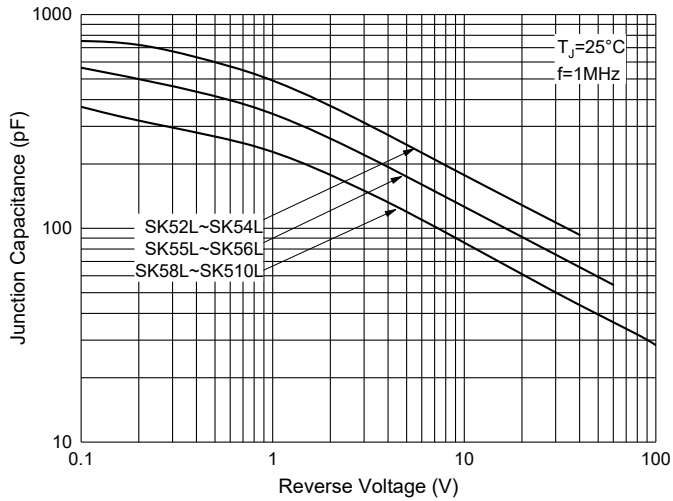


Fig. 9 - Typical Capacitance Characteristics



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel:3Kpcs/Reel

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